

## DOCKETED

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October 1, 2014

**VIA E-FILING**

Carlsbad Energy Center Project Petition to Amend (07-AFC-06C)  
Mike Monasmith, Project Manager  
Joe Douglas, Compliance Project Manager  
Paul Kramer – Hearing Officer  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: Petition to Remove Obsolete Facilities to Support Construction and  
Petition to Amend the Carlsbad Energy Center Project (07-AFC-06C)  
Response to Data Request Set 2A (No. 64)

Dear Mr. Monasmith and Mr. Douglas:

On August 29, 2014, California Energy Commission staff filed Data Request Set 2A (Nos. 59 - 66) (TN 203012) (the "**Data Requests**") regarding Carlsbad Energy Center LLC's ("**Project Owner**") Petition to Remove Obsolete Facilities to Support Construction of the Carlsbad Energy Center Project (07-AFC-06C) ("**CECP**") and Petition to Amend the CECP. The enclosed document contains Project Owner's thorough response to Data Request 64.

Please contact me if you have questions or would like to discuss this response further.

Locke Lord LLP

By: 

John A. McKinsey  
Attorneys for Carlsbad Energy Center LLC

JAM:dh

Enclosure

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# Carlsbad Energy Center Project Petition to Amend

(07-AFC-06C)

## Data Response Set 2A (Response to Data Request 64)

Submitted to  
**California Energy Commission**

Prepared by  
**Carlsbad Energy Center LLC**

With assistance from

**CH2MHILL®**

6 Hutton Centre Drive Suite 700  
Santa Ana, CA 92707

October 1, 2014

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**Attachment**

DR64-1 Encina Power Station Demolition Plan

# Introduction

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Attached are Carlsbad Energy Center LLC's (Project Owner) responses to the California Energy Commission (CEC) Data Request, Set 2A (numbers 59 through 66) regarding Waste Management for the Carlsbad Energy Center Project (07-AFC-06C) (CECP) Petition to Amend (PTA) . Any capitalized terms not defined in this Data Response Set 2A shall have the meanings given to them in the PTA.

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as the CEC presented them and are keyed to the Data Request numbers.

New or revised graphics or tables are numbered in reference to the applicable Data Request number. For example, the first table used in response to Data Request 1 would be numbered Table DR1-1. The first figure used in response to Data Request 1 would be Figure DR1-1, and so on. Figures or tables from the CECP PTA that have been revised have "R1" following the original number, indicating revision 1.

Additional tables, figures, or documents submitted in response to a data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page-numbering system.

# Waste Management (64)

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## DATA REQUEST

64. Please provide a preliminary demolition plan identifying what activities would be required at the Encina Power Station site.

**Response:** A Preliminary Demolition Plan is included as Attachment DR64-1.

**Attachment DR64-1**  
**Encina Power Station Demolition Plan**

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**Encina Power Station  
Demolition Plan  
Carlsbad Energy Center Project  
Carlsbad, California  
(07-AFC-06C)**

Prepared for  
**Carlsbad Energy Center LLC**

October 2014

Prepared by  
**CH2MHILL**  
6 Hutton Centre Drive, Suite 700  
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# Acronyms and Abbreviations

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ACM	asbestos-containing materials
amsl	above mean sea level
AQCMM	Air Quality Construction Mitigation Manager
AQCMP	Air Quality Construction Management Plan
BMP	best management practice
Cal-EPA	California Environmental Protection Agency
Cal-OSHA	California Occupational Safety and Health Administration
CEC	California Energy Commission
CECP	Carlsbad Energy Center Project
CFR	Code of Federal Regulations
City	City of Carlsbad
COC	Conditions of Certification
CPM	Compliance Project Manager
EPA	United States Environmental Protection Agency
EPS	Encina Power Station
gal.	gallon
General Permit	General Permit for Storm Water Discharges Associated with Construction Activity
hp	horsepower
I-5	Interstate 5
LBP	lead-based paint
NESHAP	National Emission Standard for Hazardous Air Pollutants
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
ppm	parts per million
PTA	Petition to Amend
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SDAPCD	San Diego Air Pollution Control District
SDCDEH	San Diego County Department of Environmental Health
SDG&E	San Diego Gas and Electric Company
SWPPP	Storm Water Pollution Prevention Plan

TCP	Traffic Control Plan
TSCA	Toxic Substance Control Act
VAP	Voluntary Assistance Program
WMP	Waste Management Plan

# Introduction

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This Encina Power Station (EPS) Demolition Plan (Plan) has been developed for the Carlsbad Energy Center Project (CECP) to support the assessment of the demolition of the EPS in Carlsbad, California (Figure 1-1) by the California Energy Commission (CEC). The demolition of EPS is included as part of the CECP Petition to Amend (PTA; AFC-07-06C) that revises the CECP plant design and requires shutdown of EPS Units 1 through 5 followed by demolition of the EPS structures to grade (Amended CECP). The EPS site would then be released from the CEC's jurisdiction and undergo redevelopment under the jurisdiction of the City of Carlsbad (City).

The EPS main power block consists of five independent units built between 1954 and 1975. Units 1 and 2 were completed by 1956, Unit 3 in 1958, Unit 4 in 1974, and Unit 5 in 1975. The EPS converted to a single 400-foot exhaust stack in 1978.

The background, objectives, demolition methods, and scope of work overview for the Plan are presented in this section.

## 1.1 Site Description

The EPS site consists of a single parcel (APN 210-01-46) that occupies approximately 95 acres (Figure 1-2). Agua Hedionda Lagoon lies adjacent to and north of the site. The site is chiefly occupied by EPS; the Poseidon Carlsbad Desalination Project, which is presently under construction; and the San Diego Gas & Electric (SDG&E) switchyard. The current assessor's parcel number, APN 210-01-46, was assigned in 2012. The site is zoned P-U for public utility by the City of Carlsbad. The City is in the process of changing the site's land use designation and zoning as part of the agreement between the City, NRG Energy, and SDG&E that calls for the EPS to be demolished to grade as part of the CECP under CEC jurisdiction.

The EPS site is bordered by Agua Hedionda Lagoon to the north, Interstate 5 (I-5) to the east, SDG&E properties to the south, and Carlsbad Boulevard to the west. The site is transected by the north-south-trending North County Transit District rail line, which separates the EPS East Tank Farm from the rest of the site. A commercial zone with restaurants and a hotel lies to the southeast, across the railroad tracks. The East Tank Farm is the site of the construction of CECP, which will allow for the shutdown and retirement of EPS Units 1 through 5.

The EPS main power block structure is located on the southwest portion of the parcel immediately east of Carlsbad Boulevard. Infrastructure supporting the main power block includes: natural gas pipeline, once-through cooling tunnels, sanitary sewer system, 230- and 138-kV power lines, wastewater system (groundwater seepage discharge), communication lines, and stormwater discharge system. Onsite features of the EPS facility to be demolished include: the 8-story power plant building that houses the five steam turbine Units 1 through 5, associated boilers, turbine lube system, air emissions control devices, stack, pumps, fans, condensers, decommissioned fuel oil lines, sumps, and three control rooms. The power plant building also houses the chemistry laboratory, instrumentation, and control shops. Five oil-filled transformers associated with Units 1 through 5 are located adjacent to the power plant building.

Ancillary structures supporting current EPS operations include a 17-megawatt gas turbine unit, multiple transformers, aboveground ammonia storage tanks, administration building, maintenance shop/warehouse, machine shop, paint shop, guard shacks, discharge basin equipment, chemical storage building, wastewater treatment, fire water storage tanks. Other onsite equipment includes third-party telecommunications equipment (cellular tower and cellular antennas).

Additionally, a former subsurface 20-inch-diameter pipeline from an offsite marine oil terminal to the EPS tank farms was cleaned and permanently closed in place in May 2013. A portion of the 20-inch pipeline on

the EPS site was removed as part of the ongoing construction of the Carlsbad Desalination Plant. The marine oil terminal is under a lease from the State Lands Commission and is in caretaker status.

## 1.2 Objectives

The primary objective of the Plan is to provide information to be used by the CEC to assess the demolition of EPS. The Plan has been prepared using best professional judgment and best management practices (BMP), and provides an overview of how demolition will occur, the sequence it will follow, what equipment and manpower will be required, what material will be brought onto the site, types and volumes of material and waste that will leave the site, and what can be salvaged for resale or recycling.

The Plan is based on the assumption that demolition of the EPS will use waste diversion techniques to maximize recycling, reduce the volume of material requiring transport offsite, and reduce the waste that will require disposal at local landfills.

Subsurface remediation of the EPS site is not included in the Amended CECP and, therefore, the Plan covers removal of equipment and structures on top of the EPS plant grade and EPS power block grade (i.e., Units 1–3 and Units 4 and 5), stack grade, and cooling water system grade. The removal of below-grade structures and foundations and subsurface soil and/or groundwater remediation will be conducted as part of redevelopment activities carried out under local (City of Carlsbad) jurisdiction. During demolition of the above-grade structures, if obvious areas of contamination are found (e.g., stained soil and/or soil with hydrocarbon-like odor), samples will be obtained to assess the potential contamination. If these samples exceed county or state standards, they will be cleaned to industrial clean-up levels in accordance with and in coordination with the San Diego County Department of Environmental Health (SDCDEH) as the lead agency for the EPS site under the County's Voluntary Assistance Program (VAP).

## 1.3 Scope of Work Overview

The EPS above-grade demolition is anticipated to take 22 months and will begin after shutdown of EPS Units 1 through 5. Site lay-up activities in preparation for future redevelopment is included in the 22-month above-grade demolition schedule. Demolition mobilization will occur after achieving commercial operation of the Amended CECP and after decommissioning of the EPS generating units. The EPS demolition will generally occur within an area bounded by the property fence line west of the railroad tracks, south of the lagoon, east of Carlsbad Boulevard (also referred to as Pacific Coast Highway), and north of the SDG&E maintenance property (see Figure 1-2). Two EPS water storage tanks located on the SDG&E maintenance property will be included in the demolition. No activity is planned within or west of Carlsbad Boulevard. The SDG&E Encina switchyard and supporting control house are excluded from demolition. Additionally, areas of the EPS property in the previously described boundary will remain, such as the leased areas used by the Poseidon Carlsbad Desalination Project. The primary access to CECP through the EPS site will be maintained. There are no plans to use areas east of the railroad tracks for EPS demolition activities, but site access could occur through the southwest corner of the Amended CECP site.

This Plan supports demolition of the EPS, and provides the basic information of how the demolition will be performed. Detailed specific work plans will be prepared and submitted pursuant to the CEC compliance process for the CECP Final Decision to the CEC's Compliance Project Manager (CPM) assigned to CECP.

This Plan identifies wastes streams that can be recycled or salvaged/resold, and identifies existing facilities that may accept the waste and recycled material.

The Plan addresses existing above-grade site features at EPS including but not limited to the following:

- Power plant building and contents
- Stack demolition
- Combustion turbine and structures, east power plant building

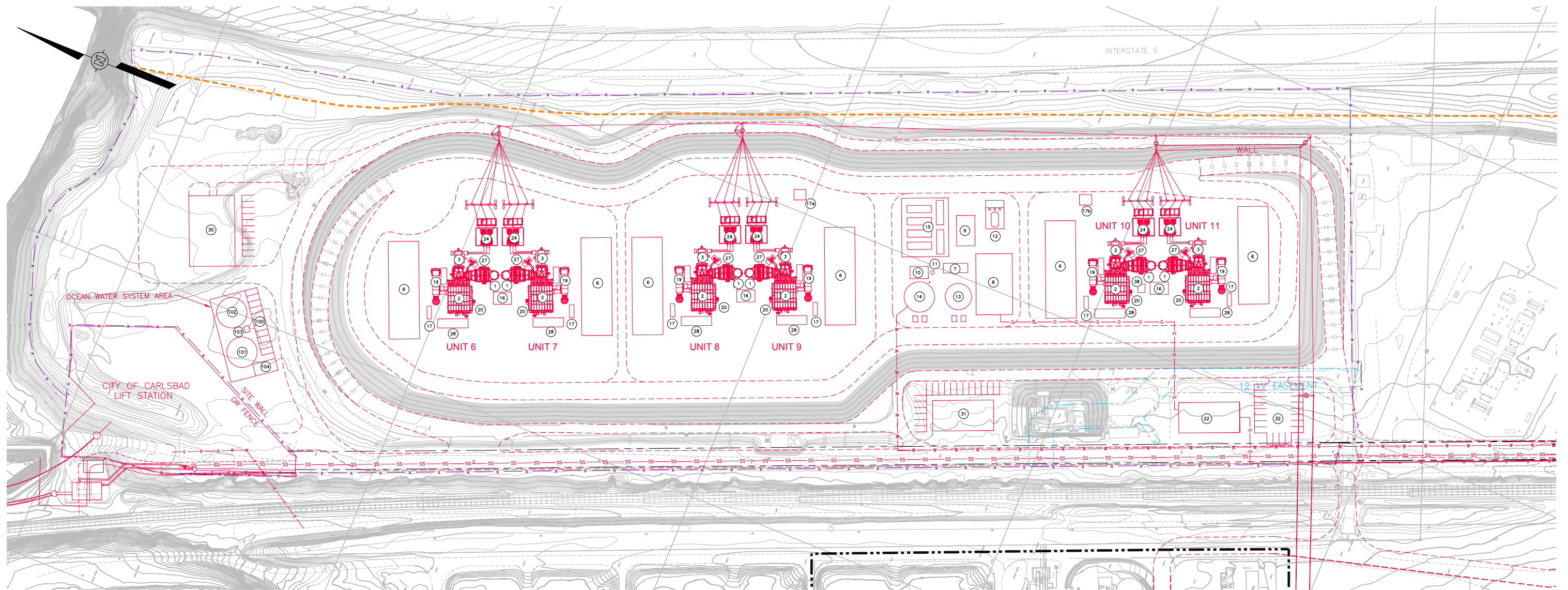
- Ocean water intake/discharge piping, structures, and equipment
- Northwest structures, tanks, and piping
- Fuel oil piping and supports
- Southeast corner structures
- Two domestic water tanks on SDG&E property
- EPS associated and owned switchyard breakers

The SDG&E switchyard located within the existing EPS is not addressed in this Plan because the switchyard is the sole responsibility of SDG&E and is part of the existing regional electrical transmission system that is separate and independent from the ongoing operations of EPS and from the future operations of CECP.

The Plan provides an overview of the scope of work, sequencing, and the process of the demolition activities. Abatement activities, water usage, material management, equipment, and services responsibilities are outlined. The specific plans required for demolition of EPS under various Conditions of Certification (COC) in the Final Decision for CECP will be prepared and provided to the CEC CPM. Information and documentation regarding compliance with applicable COCs will be submitted to the CEC CPM.

Demolition has been planned within a 24-month schedule based on the Settlement Agreement with the City and SDG&E. Section 4.0 of this Plan provides a narrative for the supporting documents that will be prepared to meet compliance with 07-AFC-06C and implemented as part of the demolition of EPS. Amendments to these compliance-phase documents will be provided as necessary. These supporting documents are listed by reference below:

- Traffic Control Plan (TCP)
- Noise Monitoring Plan
- Storm Water Pollution Prevention Plan (SWPPP)
- Waste Management Plan (WMP)
- Air Monitoring Plan
- Quality Control Plan
- Health and Safety Plan
- Post-Demolition Management and Monitoring Plan



**LEGEND:**

- LOCATION OF POSEIDON DESAL PLANT
- PIPE LINE RIGHT OF WAY
- I-5 PARTIAL RIGHT OF WAY TAKE BOUNDARY
- G- GAS LINE (APPROVED ROUTING PER PEAR)
- W- RECLAIMED WATER LINE (APPROVED ROUTING PER AFC)
- SS- SANITARY SEWER LINE
- x- FENCE LINE / PROJECT BOUNDARY
- - - 12KV EASEMENT TO POSEIDON

**EQUIPMENT LIST**

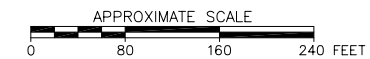
- |                                    |   |
|------------------------------------|---|
| 1 EXHAUST STACK                    | 22 GAS METERING                             |
| 2 COMBUSTION TURBINE ENCLOSURE     | 24 GSU TRANSFORMER                          |
| 3 GENERATOR ENCLOSURE              | 27 ATTEMPORATION BLOWER SKID                |
| 6 FIN FAN COOLERS                  | 28 CTG AND INTERCOOLER MCC                  |
| 7 BOP PDC                          | 30 WAREHOUSE AND MAINTENANCE BUILDING       |
| 8 GAS COMPRESSOR BUILDING          | 31 CONTROL ROOM AND ADMINISTRATION BUILDING |
| 9 AIR COMPRESSOR BUILDING          | 32 PARKING LOT                              |
| 10 FIRE PUMP BUILDING              | 38 EMERGENCY DIESEL GENERATOR               |
| 11 DIESEL STORAGE TANK (IF NEEDED) | 100 OCEAN WATER TRAILERS                    |
| 12 AMMONIA STORAGE AREA            | 101 OCEAN WATER STORAGE TANK                |
| 13 DEMINERALIZED WATER TANK        | 102 ULTRA FILTRATION STORAGE TANK (OWS)     |
| 14 RAW/FIRE WATER TANK             | 103 ULTRA FILTRATION PUMPS                  |
| 15 WATER TREATMENT TRAILERS        | 104 SOLIDS UNLOADING SPACE                  |
| 16 CEMS ENCLOSURE                  |   |
| 17 UNIT AUXILIARY TRANSFORMER      |   |
| 18 AMMONIA PREP SKID               |   |
| 19 SHELL AND TUBE HEAT EXCHANGER   |   |
| 20 AUXILIARY SKID                  |   |

**SOURCE:**

CB&I ENVIRONMENTAL & INFRASTRUCTURE

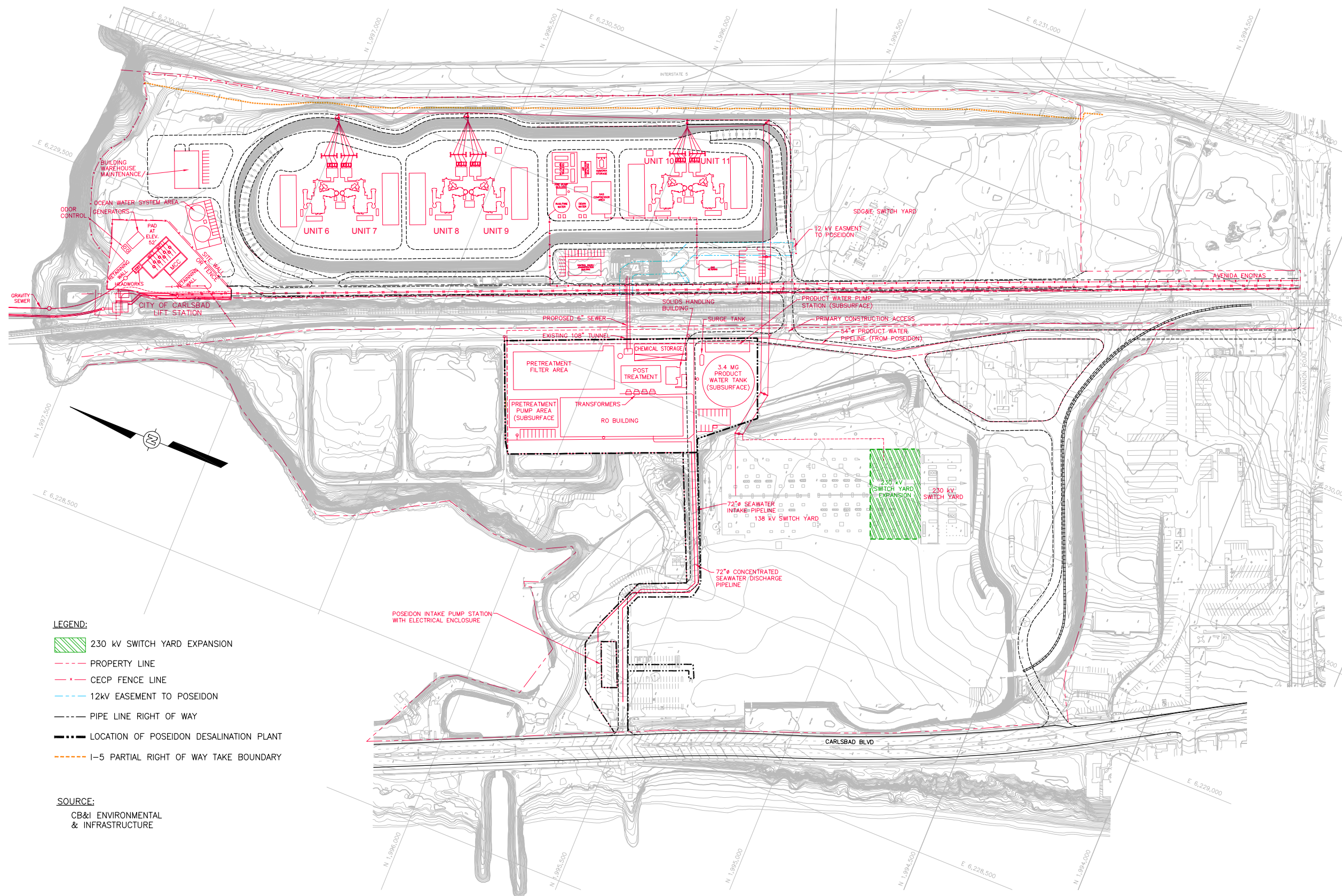
**NOTE:**

SOME EQUIPMENT NOT SHOWN FOR CLARITY.



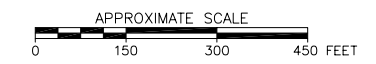
**Figure 2-1**  
**Site Plan**  
 Amended Carlsbad Energy Center Project  
 Carlsbad, California (07-AFC-06C)  
 Petition to Amend





- LEGEND:**
- 230 kV SWITCH YARD EXPANSION
  - PROPERTY LINE
  - CECP FENCE LINE
  - 12kV EASEMENT TO POSEIDON
  - PIPE LINE RIGHT OF WAY
  - LOCATION OF POSEIDON DESALINATION PLANT
  - I-5 PARTIAL RIGHT OF WAY TAKE BOUNDARY

**SOURCE:**  
 CB&I ENVIRONMENTAL  
 & INFRASTRUCTURE



**Figure 2-2**  
**Depiction of Site after EPS Demolition**  
 Amended Carlsbad Energy Center Project  
 Carlsbad, California (07-AFC-06C)  
 Petition to Amend

# Schedule

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Demolition of the existing EPS is anticipated to commence approximately 12 months after shutdown of EPS, which is planned upon achieving a November 1, 2017, commercial on-line date for the Amended CECP. EPS demolition will follow decommissioning activities, which would commence following shutdown of EPS. Shutdown and subsequent decommissioning and demolition of EPS are based on a number of factors including the licensing of the PTA by the CEC and input from the California Independent System Operator (CAISO) and California Public Utilities Commission (CPUC); these agencies are each part of the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) that advise the State Water Board on the implementation of the State's once-through cooling policy to ensure that implementation of the Policy will not cause disruption to the State's electrical power supply.

The 22-month demolition schedule included in this Plan is for assessment purposes and is consistent with the Settlement Agreement with the City of Carlsbad, which established a 24-month demolition period. Estimated labor for EPS demolition activities has been provided in the PTA and is summarized here in Table 2-1.

Demolition of the EPS will be completed in a sequenced manner that will include: (1) preparation of site laydown and parking areas, (2) removal of vessels/equipment and associated hazardous materials/wastes, (3) demolition of structures and associated recycling/disposal of materials, and (4) site layup/stabilization. It is anticipated that the pumps, tanks, and equipment associated with the existing EPS extended waste and low volume wastewater management systems will be maintained until the end of demolition to ensure management of wastewater generated during demolition activities. The demolition sequence will include transport and disposal of wastes, recycled materials, and salvaged equipment and will include the removal of remaining extended and low volume wastewater management systems. The final sequence will include site lay-up/stabilization in preparation for redevelopment that would be led by the City of Carlsbad. The anticipated 22-month EPS demolition schedule is listed below by activity and range of months following completion of EPS decommissioning:

- Surveys, mobilization, site preparation, abatement, and isolations (Months 1–9)
- Ocean water intake/discharge piping, structures, and equipment (Months 9–13)
- Power plant building and contents (Months 9–19)
- Combustion turbine and structures, east power plant building (Months 12–15)
- Northwest structures, tanks, and piping (Months 12–15)
- Fuel oil piping and supports (Months 12–15)
- Southeast corner structures (Months 12–15)
- Two domestic water tanks on SDG&E property (Months 12–15)
- Stack demolition (Months 14–19)
- Site lay-up/stabilization and long-term stormwater and wastewater management systems (Months 20–22)
- Demobilization (Month 22)

## 2.1 Manpower

Manpower requirements have been evaluated using a 22-month demolition schedule (see Table 2-1). Manpower loads will vary depending upon the specific activities (e.g., equipment operation, truck driving, asbestos and lead abatement, dismantling of structures, health and safety monitoring, sampling, and general housekeeping). The demolition schedule and manpower requirements assume up to 10-hour days, 6 days a week, Monday through Saturday. No work is planned for Sundays or on holidays. Work will be limited to 7:00 a.m. to 6:00 p.m. Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays. It is anticipated the maximum number of onsite personnel during demolition activities will be 194 in month 6,

with an average of 67 personnel for the duration of the project. It is anticipated that the crews will be working approximately 560 days to complete the work.

Because the project will be completed in a sequenced manner and at individual work areas, some overlap in personnel requirements will occur. This will allow crews to be used between tasks and maximize their efficiency.

The individual trades include:

- Asbestos Abatement Worker
- Asbestos Abatement Foreman
- Asbestos Abatement Specialist
- Lead Abatement Worker
- Truck Driver
- Demolition and General Laborer
- Carpenters
- Operating Engineers
- Ironworkers
- Electricians

TABLE 2-1  
**Labor Work Force Demographics for EPS Demolition**

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Totals
<b>Craft</b>																							
Laborers	10	10	45	105	155	165	146	91	72	56	50	28	25	25	15	15	15	12	10	10	10	10	<b>1,080</b>
Operating Engineers	2	2	2	2	2	4	8	10	12	4	4	4	2	8	8	8	8	4	2	2	2	2	<b>102</b>
<b>Contractor Staff</b>																							
Construction Manager	3	3	7	13	17	20	20	16	13	10	9	7	6	9	6	6	6	5	0	0	0	0	<b>176</b>
Administrators	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	<b>44</b>
Engineering Supervisor	3	3	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	<b>28</b>
Health and Safety Engineer	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	<b>44</b>
<b>Monthly Totals</b>	<b>22</b>	<b>22</b>	<b>59</b>	<b>125</b>	<b>179</b>	<b>194</b>	<b>179</b>	<b>122</b>	<b>102</b>	<b>75</b>	<b>68</b>	<b>44</b>	<b>38</b>	<b>49</b>	<b>34</b>	<b>31</b>	<b>34</b>	<b>26</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>1,474</b>

## 2.2 Equipment

Equipment requirements have been evaluated using a 22-month demolition schedule following the same weekly work hours and duration assumed above. Equipment requirements will vary depending on the specific activities being performed and the final means and methods employed. Because the EPS demolition will be completed in a sequenced manner and at individual work areas, there will be some overlap in equipment requirements. This will allow equipment to be used between tasks to maximize efficiency.

Equipment anticipated to be used for EPS demolition is listed in Table 2-2.

During peak activities at the site, it is likely that an average of 30 tractor-trailer units may leave the site each day to transport equipment/structures and waste offsite for disposal and/or recycling. The bulk of the

equipment will be used during the demolition of the EPS main structure and then the stack, which corresponds to months 6–19.

It is anticipated that a maximum of 37 pieces of equipment will be onsite during demolition activities (excluding service vehicles), with an average of 18 pieces of equipment for the duration of the project. It is anticipated the equipment will be used 6 days a week during the EPS demolition.

TABLE 2-2  
Major Equipment Quantities for EPS Demolition

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Totals	
Crawler Excavator w/Breaker						2	3	3	4								2						14	
Crawler Excavator w/Grapple or Bucket	1	1	1	1	1	1	2	2	2	1	1	1	1	3	3	3	3						31	
Crawler Excavator w/Shear						1	2	2	2	1	1	1	1	3	3	3	3						23	
Crawler Excavator w/Pulverizer								2	2														4	
Skid Steer Loader	2	2	6	8	8	10	10	10	12	6	6	6	6	6	6	6	6			2	2	2	122	
Track Loader	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1	25	
Rubber Tire Loader											1	1	1	1	1	1	1	1	1				10	
Water Truck	1	1	1	1	1	2	2	3	3	2	2	2	2							1	1	1	26	
Hydro-Crane			1	1			2	2	1	1	1	1	2										12	
Portable Crusher										1	1	1	1	1	1	1	1	1	1				10	
Ten Wheeler with Dump Bins				2	2	2	2	2	2	2	2	2	2										20	
Semi-End Dumps						2	3	4	6	2	2	2	2	8	4	14	14	3	3				79	
Tractor/Trailer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	25

# Regulatory Compliance and Permitting Requirements

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## 3.1 Demolition-Specific Regulatory and Permitting Requirements

The primary permit for demolition of the EPS is the CEC Final Decision 07-AFC-06C. The Final Decision licenses the project owner to commence demolition once pre-construction COCs have been satisfied and the CEC CPM has provided approval. CEC jurisdiction is in lieu of all other state and local permits; however, air and water quality permitting is usually still required because those agencies have been delegated the authority to implement United States federal air quality and water quality laws/regulations which cannot be displaced by a state law/regulation granting a single agency exclusive jurisdiction. In addition, the CEC, in actual practice, defers to some local agencies, such as the applicable fire department.

Activities regulated by agencies and/or regulations include demolition activities, lead-based paint abatement, asbestos abatement, aboveground and underground storage tank removal, hazardous and solid waste management and disposal, land-disturbing activities, water discharge, and activities that would discharge sediment/fill into any waterway including the Agua Hedionda Lagoon and Pacific Ocean.

### 3.1.1 Air and Noise Regulatory Requirements

#### 3.1.1.1 Air Emission/Air Quality

##### General

The San Diego Air Pollution Control District (SDAPCD) regulates air emissions in San Diego County. The CEC defers to SDAPCD for air quality permitting but also applies its own conditions and requirements. The applicable requirements for the demolition of EPS include asbestos abatement and equipment permitting.

##### Asbestos

COC WASTE-6 requires the project owner to submit an approved SDAPCD Asbestos Notification Form to the CPM prior to removal and disposal of asbestos. The asbestos *National Emission Standard for Hazardous Air Pollutants* (NESHAP), as specified under Rule 40, Code of Federal Regulations (CFR) 61, Subpart M, is enforced locally by the SDAPCD, under authority of Regulation XI, Subpart M Rule 361.145. This rule requires the *owner* of an establishment set for demolition or the *owner* or *operator* of any equipment used to demolish any structure to submit an **Asbestos Demolition or Renovation Operational Plan (Notice of Intention [NOI])** at least 10 working days before any asbestos stripping or removal work begins (such as site preparation that would *break up, dislodge, or similarly disturb asbestos-containing material.*)

##### Portable Equipment Registration

Portable equipment (defined as any emission source that, by itself or in or on a piece of equipment, is designed to be or is capable of being transported from one location to another, including non-propulsion engines such as generator sets) transported onto the site must first be registered with the statewide portable equipment registration program, administered by the California Air Resources Board. Such equipment must satisfy state and regional requirements for efficiency and compliance with air quality standards.

In addition, the SDAPCD requires a registration permit for certain types of recycling operations such as pavement or concrete. This requirement is based on Rule 12.1, which may or may not be a requirement depending on equipment configuration.

## Off-Road Equipment

Use of off-road equipment will be managed by the Air Quality Construction Management Plan (AQCMP) per COC AQ-SC2 and administered by the Air Quality Construction Mitigation Manager (AQCMM) per COC AQ-SC1. Per CEC License Air Quality COC AQ-SC5 off-road diesel-fired equipment, at a minimum, will require the use of EPA/ARB Final Tier 3 engine compliant equipment for equipment 50 horsepower (hp) or higher shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the onsite AQCMM demonstrates that such engine is not available for a particular item of equipment.

Diesel engines used during demolition activities will be required to meet the Final and Interim tier requirements unless the equipment is specialized and a good faith effort has been made to identify similar tier equipment.

In support of the conclusion that the diesel engines will, at a minimum comply, with Tier 3 standards, as discussed in the response to CEC Data Request 6a, the EPS demolition phase is expected to be the last phase of the project. For the EPS demolition air quality impact analysis, it has been assumed that EPA Tier 4i and Tier 4 engines will be available for demolition equipment. EPA Tier 4 engines were assumed for the smaller equipment (engines rating less than 75 hp) and EPA Tier 4i engines were assumed for the larger equipment (engines rating equal to and greater than 75 hp).

## Haul Route Dust Suppression

The AQCMP requires compliance with the following mitigation measures for the purposes of preventing fugitive dust plumes from leaving the project site (COC AQ-SC3). Additional observation, monitoring, control, and reporting requirements are included in the AQCMP per COC AQ-SC4. Planned demolition haul routes are or will be paved or graveled. Dust suppression will be required during demolition. The following requirements will be enacted to mitigate potential airborne dust plumes:

- Unpaved roads (until paved or completed with gravel base) and disturbed areas in the project and stockpile areas shall be watered as frequently as necessary to comply with the dust mitigation requirements.
- Vehicle traffic on site will be maintained to less than 10 miles per hour.
- The site entrances shall be posted with visible speed limit signs.
- Equipment vehicle tires shall be inspected and washed as necessary to be cleaned and free of dirt prior to entering paved roadways.
- Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.
- EPS exits shall remain or be paved or graveled to prevent track-out to public roadways.
- Vehicles shall enter the construction site through the treated entrance roadways.
- Paved roads within the site shall be swept at least twice daily (or less during periods or precipitation) on days when demolition activity occurs to prevent the accumulation of dirt and debris.
- At least the first 500 feet of any public roadway exiting the construction site shall be swept visually clean, using wet sweepers or air-filtered dry vacuum sweepers, at least twice daily (or less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff from the construction site is visible on the public roadways.
- Storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or shall be treated with appropriate dust suppressant compounds.

- Vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible emissions shall be provided with a cover or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least two feet of freeboard.
- Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all areas that may be disturbed.

### 3.1.1.2 Noise Level Limits

#### General

COC NOISE-6 limits work hours to 7:00 a.m. to 6:00 p.m. week days, and 8:00 am to 6 p.m. on Saturdays. No noisy work will be allowed on Sundays. Haul trucks and other engine-powered equipment shall be equipped with mufflers that meet applicable regulations. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

The City of Carlsbad's Noise Guidelines Manual contains a section that sets community noise exposure limits at 60 dBA CNEL for noise that impacts any residence, school, library, church, hospital, or nursing home. The Municipal Code limits disturbing or offensive construction noise to the hours between 7:00 a.m. and 6:00 p.m. on weekdays, and between 8:00 a.m. and 6:00 a.m. on Saturdays. It prohibits such noise on Sundays and specified holidays.

## 3.1.2 Water Regulatory Requirements

### 3.1.2.1 Stormwater

#### California Regional Water Quality Control Board – San Diego Region

COC SOIL & WATER-1 requires submittal of a Construction SWPPP to the CPM. SOIL & WATER-1 also requires correspondence with the City of Carlsbad concerning the SWPPP and compliance with the current Storm Water Standards Manual.

A General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) is applicable to demolition activities for this project. The General Permit is implemented and enforced by the Regional Water Quality Control Board (RWQCB). Land-disturbing activities required submittal of an NOI, a vicinity map, and the appropriate fee to the RWQCB to obtain coverage under the General Permit.

The SWPPP has two major objectives: (1) to identify the sources of sediment and other pollutants that affect the quality of stormwater discharges, and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater, as well as non-stormwater discharges. The SWPPP includes BMPs that address source control and, if necessary, BMPs that address pollutant control.

The required elements of an SWPPP include:

- Site description addressing the elements and characteristics specific to the site
- BMPs for erosion and sediment controls
- BMPs for construction waste handling and disposal
- Implementation of approved local plans from City of Carlsbad
- Proposed post-construction controls, including description of local post-construction erosion and sediment control requirements
- Non-stormwater management

Another aspect of the SWPPP is a description of the monitoring program and responsible parties for implementation of the SWPPP. Permittees are required to conduct visual inspections of the construction site prior to anticipated storm events and after actual storm events.

When construction, demolition, and site lay-up/stabilization phases are complete through site demobilization, EPS will file a Notice of Termination with the RWQCB certifying that applicable state and local stormwater requirements have been met in accordance with the General Permit.

## **3.2 Community Relations**

Prior to the commencement of demolition activities, CECP will provide courtesy notices, in accordance with NOISE-1 of the Final Decision for CECP, to nearby businesses and residents to inform them of the demolition activities and general schedule and to identify efforts that will be made to minimize impacts to the local community.



# Pre-Demolition Activities

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Pre-demolition activities will include decommissioning of EPS, isolation of EPS from the SDG&E switchyard, removal of equipment and hazardous materials and wastes, and abatement activities.

## 4.1 Abatement

Materials and equipment onsite that have the potential to contain hazardous or objectionable material will be surveyed to locate, characterize, and delineate the removal quantities of environmentally hazardous and objectionable materials. Abatement activities will be conducted in accordance with applicable COCs and state and federal regulations. All work will be performed by contractors licensed by the California State Contractor's Licensing Board. The abatement contractor(s) will prepare abatement plans prior to the initiation of activities. These plans will include a detailed description of the abatement work to be conducted, along with a description of the abatement methods and procedures to be used.

Specific elements of the abatement plans will address methodology and procedures, site preparation, required containment setup, engineering and work practice controls, personal protection equipment, worker exposure assessment (air monitoring), waste labeling, waste storage/containerization, waste transport/disposal, personnel decontamination, worker hygiene facilities, and general house-keeping and clean-up.

### 4.1.1 Asbestos

Prior to EPS demolition activities, asbestos containing materials (ACM) will be identified and abated. For the purpose of this Plan, a conservative approach is being followed that assumes all insulation on piping and vessels at EPS is ACM. A sampling program to investigate the presence or absence of ACM in other plant materials will also be conducted. Materials investigated will include concrete (including the EPS stack), flooring tile and mastic, acoustical ceilings, drywall and plaster, asbestos-cement products (for example, transite siding), roofing and flashings, packing, gaskets, and caulking. Removal will take place in enclosures under negative air pressure, or by use of glove bags. Abatement work will be monitored by an independent consultant who will observe the work for compliance with regulations and will conduct air monitoring.

All specifications for stripping, removal, and disposal portions of the abatement work shall conform to the following specifications, current standards, and any amendments in effect at the time the work is performed:

- Occupational Safety and Health Administration (OSHA)
  - Cal-OSHA Title 8, Section 1529, and federal OSHA 29 CFR 1926.1101, Asbestos Construction Safety Orders
  - Cal-OSHA Title 8, Section 5144, and federal OSHA 29 CFR 1910.134 Respiratory Protection
- U.S. Environmental Protection Agency
  - Title 40 Code of Federal Regulations Part 61 Subpart A – “General Provisions”
  - Title 40 Code of Federal Regulations Part 61 Subpart M “National Emission Standard for Asbestos”
  - Title 40 Code of Federal Regulations Part 763, Subpart E, Asbestos Hazard Emergency Response Act (AHERA), and appendices “Asbestos Model Accreditation Plan”
  - EPA “Guidance for Controlling Asbestos Containing Materials in Buildings” (EPA 560/5-85-024)
  - EPA Region IV, “Demolition Practices Under Asbestos NESHAP”  
<http://www.epa.gov/region04/air/asbestos/demolish.htm>

- The following documents published by the American National Standards Institute:
  - “Fundamentals Governing the Design and Operation of Local Exhaust Systems,” American National Standards Institute (ANSI) Z9.2-1979.
  - “American National Standard for Respiratory Protection – Respiratory Use – Physical Qualifications for Personnel,” ANSI Z88.6-1984.
  - “Practices for Respiratory Protection,” ANSI Z88.2-1992.
- The following document published by the Department of Transportation:
  - Title 49, Section 172, Subpart D.

### **4.1.2 Lead-based Paint**

Surface coatings will be tested by either an X-ray fluorescence process or through sampling and laboratory analysis. Flaking or peeling lead-based paint (LBP) will be removed prior to demolition. The waste product generated during removal will be collected, containerized, and transported offsite for disposal. Should flame cutting or welding be required on surfaces coated with LBP, the LBP shall be removed from the surface in advance.

It is assumed that demolition debris that contains firmly adhered LBP (e.g., concrete debris with LBP) will not be a hazardous waste and will be managed as nonhazardous debris. Except for scrap metal, LBP debris will be analyzed to confirm the characterization.

### **4.1.3 TSCA Hazardous Materials**

A hazardous material survey will be conducted for potential federal Toxic Substance Control Act (TSCA) hazardous waste. TSCA hazardous materials, including painted or coated surfaces identified with polychlorinated biphenyl (PCB) greater than 50 parts per million (ppm), porous or non-porous materials identified with PCBs greater than 50 ppm, caulking or seals surfaces identified with PCBs greater than 50 ppm, and any PCB-impacted material associated with an identified TSCA piece of equipment including transformers, compressors, and any light ballast identified as “PCB-Containing.” Ballast without a label or ballast that contains a leaking capacitor is assumed by regulation to contain PCBs and shall be managed as such.

These wastes will be segregated from non-Resource Conservation and Recovery Act (RCRA) and nonhazardous waste streams and will be analyzed to confirm the characterization profile and disposed of at EPA TSCA approved facilities.

## **4.2 Hazardous Materials**

Hazardous material surveys will be conducted on any equipment or material that is known or has the potential to contain hazardous waste. Historical building materials (bricks, refractory, etc.) and equipment (tanks, mercury-containing equipment, etc.) may contain elevated levels of metals or chemical constituents that will require additional management to assure proper handling and disposal.

These wastes will be segregated from non-RCRA and nonhazardous waste streams, and will be analyzed to confirm the characterization profile and to ensure disposed of at approved hazardous waste facilities.

## SECTION 5.0

# Demolition Activities, Sequence, and Methods

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Each of the demolition areas will contain equipment and components that are described in the following sections.

The following section describes in detail the specific scope of work including:

- General description of the work
- Sequencing of the work
- Attachments/exhibits/specifications for the work
- Specific details of the work
  - Demolition and abatement of existing facilities and asset disposal
  - Existing facilities to remain undisturbed
  - Water usage
  - Storm water controls
  - Individual work areas
    - Power plant building and contents
    - Stack demolition
    - Combustion turbine and structures, east power plant building
    - Ocean water intake/discharge piping, structures and equipment
    - Northwest structures, tanks, and piping
    - Fuel oil piping and supports
    - Southeast corner structures
    - Two domestic water tanks on SDG&E property
- Material, Equipment, and Services provided by Owner
- Survey Monuments and Control
- Material and Equipment Responsibilities
- Permits
- Temporary Construction Facilities and Utilities
  - Reporting requirements
  - Safety, rules, and regulations
  - Quality Control and Quality Assurance Inspections

## 5.1 General Description and Sequencing of Work

Demolition will be performed in a sequenced manner taking into consideration safety, quality, efficiency, and effectiveness. The entire demolition process shall be organized and coordinated to assure these considerations.

The tanks and vessels will be decommissioned and the existing EPS shut down with systems purged by Cabrillo Power I LLC (the owner/operator of EPS). Upon demolition contract award and with applicable permits in place, the following tasks will be completed in the following general sequence:

- Verify that decommissioning and plant shutdown has occurred.
- Mobilize equipment and personnel.
- Establish support offices.
- Establish laydown areas and employee parking.
- Establish break areas.

- Establish traffic routes.
- Establish stormwater controls per an approved grading permit.
- Remove any residual wastes (nonhazardous and hazardous) from tanks, vessels, equipment, including air conditioning units.
- Perform hazardous materials assessment for PCBs, ACM, and LBP.
- Perform abatement of PCBs, asbestos, and LBP materials and equipment.
- Isolate all underground utilities (except stormwater systems) and cap all piping and conduits left in place.
- Prepare surfaces for hot work by removing paint from torch cut areas.
- Remove plant structure including boilers and stacks.
- Demolish/dismantle support structures.
- Crush materials onsite and stockpile for later reuse
- Visually inspect all equipment and building foundations and utilities. If there are indications the foundations or structures could be contaminated, stabilize area in plastic and cover. Samples will be collected and analyzed as needed to verify waste management and disposal methods.
- Remove intake pumps and piping from intake structure. Remove all utility associated piping and cut and cap lines at grade.
- Install intake and outfall plugs as needed.
- Prepare site for long term layup, including stormwater and wastewater management within the power block and general EPS site.
- Demobilize equipment and personnel.
- Implement post-demolition monitoring and maintenance activities.

The demolition-related sequences will be finalized during the permitting and preparation of the final plan and supporting documents.

## 5.2 Specific Description of Work

### 5.2.1 Demolition and Abatement of Existing Facilities and Asset Disposal

Demolition and abatement of existing facilities and asset/equipment disposal will be conducted as follows:

- Perform surveys to locate, characterize, and remove quantities of environmentally hazardous and objectionable material plus dismantle and/or demolish boiler units down to existing foundation grades for the respective units. Identify the appropriate waste profiles to be utilized. This includes elevators and associated steel structures; boilers; tanks; pumps; preheaters; ductwork; conduit; evaporators; all piping, including that containing fuel oil that could require cleaning prior to removal to make safe; structural steel; stairs and handrails; and all other items within the limits of work. Cold methods for “first-breaks” and creating “air-gaps” on pipes, enclosed vessels, and tanks will be used. Containment walls associated with slabs shall be removed down to slab grade. Hazardous material surveys will include but be not limited to PCBs, asbestos, and LBP. Sampling will include insulation, building materials, walls and surfaces including concrete and tile, caulking, seals, and painted surfaces. A sampling and removal plan will be prepared prior to any dismantling work being performed.

- Demolish existing structures and equipment and materials as appropriately green-tagged in accordance with safety tagging procedure, in, on, and adjacent to other structures.
- Plumbing, electrical, and other utilities will be disconnected, capped, and/or cut as required to safely perform the work.
- Prior to demolition and removal, all pits, tunnels, and trenches within and adjacent to the turbine and boilers will be opened, inspected, cleaned, and made safe by the replacement of removed or repaired deck plates or handrails as appropriate. Material removed from the pits and trenches will be properly disposed of under appropriate manifest.
- Main and auxiliary transformers will be drained of oil where appropriate and then removed.
- Engineering will be provided as necessary to ensure any equipment and piping removed from the EPS power block areas is adequately supported and restrained during demolition in a manner that meets all applicable codes and requirements.
- Roof-mounted equipment and associated piping, electrical, and control systems will be removed, salvaged and/or disposed.
- After abatement, the boiler fire bricks/refractory materials will be loaded into trucks or containers for disposal. Characterization will be performed to determine if the materials need to be disposed of as nonhazardous or hazardous waste.
- At the completion of the work, temporary facilities will be removed and the site left in a clean and safe condition.
- Detailed instructions will be developed to describe the methods and procedures required to isolate and de-energize all electrical equipment prior to removal, and without interrupting systems that are to remain in place.
- Lock out/ tag out procedures will be in place.
- Presence of hazardous materials in the control room cabinets and panels will be verified and cabinets and panels will be appropriately abated prior to demolition.
- Cabinets and panels in “critical areas” will be removed.
- The fire water system inside the boilers and boiler structure will be isolated, blocked and blinded, and dismantled.
- Existing storage tanks, pumps, piping and components will be removed and disposed of/recycled as appropriate based on prior sampling of these equipment/materials.
- HVAC equipment will be inspected for potential ozone-depleting gasses by licensed contractors, and the associated hazardous materials will be removed and disposed.
- Friable and non-friable insulation on mechanical systems and equipment, piping, HVAC, electrical components and equipment, transite spark arrestors, switchgear protection, and transite electrical conduit will be abated, removed, and properly disposed.
- Friable and non-friable transite panels associated with the building structure prior to structural demolition will be abated, removed, and properly disposed.
- Remediation, cleaning, dismantlement and removal of fuel oil lines, both above-grade and contained in accessible below-grade trenches will be completed.
- Below grade piping will be identified and sealed pending final below grade demolition.

- Lights and ballasts, and universal wastes (e.g., mercury-containing equipment) will be disposed of properly.
- LBP will be managed to support the dismantling and demolition activity.
- Monitoring will be performed during abatement to ensure asbestos fiber concentrations are maintained below 0.01 fibers per cubic centimeter, greater than 5 microns in length, for all samples taken to allow these areas to be considered “clean” and “acceptable for occupancy.” When Transmission Electron Microscope analysis is used, clearance levels must satisfy 29 CFR Part 1926.1101.

### 5.2.2 Existing Facilities to Remain Undisturbed

Before, during, and following completion of the work, certain existing facilities within the EPS facility must remain in operation and undisturbed. Adequate care and caution must be exercised to protect these existing facilities and ensure that the provided services are not impaired. To aid in identifying such facilities, equipment remaining in place or relocated will be yellow- or red-tagged. Demolition of interconnection infrastructure will require knowledge of the following:

- Access to the SDG&E switchyard requires advance notice and permission during demolition and abatement work.
- Certain stairs and handrails shall remain in place to ensure safe access during the project. Any handrail removed or modified to enable equipment demolition will be restored to a safe condition as part of the work. These may be removed upon final interior inspection.
- Demolition of connections between transformers and the switchgear within the SDG&E switchyard will be coordinated with both EPS and SDG&E personnel. Service auxiliary power for some transformers may be maintained.
- Existing SDG&E switching center facilities and circuits located within the SDG&E switchyard will be protected from damage during the demolition activities. It is extremely important that all power and control circuits involved with the existing SDG&E switching center facilities remain undisturbed and uninterrupted during the entire project.
- Communication lines supporting the facility and SDG&E must be identified and protected during all demolition work.

## 5.3 Water Usage

The demolition activities in and around structures will require water for decontamination as well as dust control. The volume of water is significant enough that two options have been evaluated:

- Use of the public water system (potable water)
- Use of recycled water supplied by the City of Carlsbad

Based upon this evaluation, use of recycled water is the most desired option. Based on the City of Carlsbad reclaimed water pipeline installation project, reclaimed water should be available for use during demolition, which is anticipated to start in 2019. In the event reclaimed water cannot or will not be made available by the City of Carlsbad, potable water from the public water system shall be used.

Water use during the 22-month demolition schedule is detailed in Table 5-1.

TABLE 5-1

**Water Use during EPS Decommissioning and Demolition**

Month	Construction Activity	Water Source	Use (gal. per day)	Use* (gal. per month)
1	Equipment Removal	Potable	18,800	470,000
2	Equipment Removal	Potable	18,800	470,000
3	Equipment Removal	Potable	18,800	470,000
4	Equipment Removal	Potable	18,800	470,000
5	Equipment Removal	Potable	18,800	470,000
6	Equipment Removal	Potable	18,800	470,000
7	Equipment Removal	Potable	18,800	470,000
8	Equipment Removal	Potable	18,800	470,000
9	Equipment Removal	Potable	18,800	470,000
10	Equipment Removal	Potable	18,800	470,000
11	Equipment Removal	Potable	18,800	470,000
12	Equipment Removal	Potable	18,800	470,000
13	Above-Grade Building Demolition	Potable	112,500	2,812,500
14	Above-Grade Building Demolition	Potable	112,500	2,812,500
15	Above-Grade Building Demolition	Potable	112,500	2,812,500
16	Above-Grade Building Demolition	Potable	150,000	3,750,000
17	Above-Grade Building Demolition	Potable	150,000	3,750,000
18	Above-Grade Building Demolition	Potable	150,000	3,750,000
19	Above-Grade Building Demolition	Potable	150,000	3,750,000
20	Above-Grade Building Demolition	Potable	150,000	3,750,000
21	Above-Grade Building Demolition	Potable	187,500	4,687,500
22	Above-Grade Building Demolition	Potable	187,500	4,687,500
23	Above-Grade Building Demolition	Potable	225,000	5,625,000
24	Above-Grade Building Demolition	Potable	225,000	5,625,000
25	Above-Grade Building Demolition	Potable	225,000	5,625,000
26	Above-Grade Building Demolition	Potable	225,000	5,625,000
27	Above-Grade Building Demolition	Potable	225,000	5,625,000
28	Above-Grade Building Demolition	Potable	187,500	4,687,500
29	Above-Grade Building Demolition	Potable	187,500	4,687,500
30	Above-Grade Building Demolition	Potable	187,500	4,687,500
31	Above-Grade Building Demolition	Potable	187,500	4,687,500
32	Above-Grade Building Demolition	Potable	150,000	3,750,000
33	Above-Grade Building Demolition	Potable	150,000	3,750,000
34	Above-Grade Building Demolition	Potable	75,000	1,875,000
35	Grading	Potable	150,000	3,750,000
36	Grading	Potable	150,000	3,750,000
			<b>TOTAL</b>	<b>325 acre-feet</b>

\*Based on 25 working days per month.

During the EPS demolition planning phase, the possible reuse of demolition phase water will be assessed.

## 5.4 Stormwater Controls

Stormwater/runoff management controls will be used to prevent surface water from entering or exiting the work area as required by the San Diego RWQCB General Permit and San Diego ordinances and the resulting SWPPP prepared for the EPS demolition. Prior to beginning of demolition activities, the existing stormwater receptors (e.g., catch basins, drains, and channels) at or near the site will be located and protected to prevent releases into them. Temporary controls (i.e., BMPs as identified in the SWPPP) may include placing waterproof covers over receptacles, berms, or straw wattles around receptacles upgradient of the site, or other means to prevent surface water from entering or exiting the work area. These temporary controls will be inspected daily to ensure proper placement and integrity, and after each rain event in excess of 1/10<sup>th</sup> of an inch in accordance with the SWPPP. In addition, the EPS power building rain water drainage system will be revised as the roof will be gone and the power building concrete pad and some of the basements will be exposed to rain water. The revised rain water drainage system will take advantage of and use the EPS stormwater drainage and sump system to manage rain water.

## 5.5 Power Plant Structures

The EPS power plant structures consist of the following components:

- Condensate tanks
- Hydrogen tanks
- Turbines
- Generators
- Transformers
- Piping
- Structures
- Lube oil tanks
- Control equipment, motors
- Lights
- Grating
- Above-grade concrete including concrete foundations
- Stack
- Duct work
- Boilers

### 5.5.1 Power Plant Building

The power plant building structure will be demolished by first performing necessary abatement (abatement is discussed in Section 4.0). In particular, the Unit 4 and 5 asbestos wall panels will be abated and removed prior to the demolition of the EPS power plant building to prevent disturbance of this material. Following the abatement, the components that can be safely and economically removed will be taken out until the structure is relatively free to begin the structural demolition.

The plan for the demolition of the EPS power plant building is a combination of mechanical dismantling and felling by controlled demolition methods. The turbine-generator deck will be demolished using high-reach excavators equipped with hydraulic jackhammers, processors, and shears. The excavators will work from the east, breaking down the deck and pedestals to slowly bring the turbine-generators to a lower elevation. Demolition of the ductwork will be performed using high-reach excavators, equipped with shears and grapples. The concrete walls of the boiler building will be demolished using high-reach excavators equipped with hydraulic jackhammers. Following the removal of the EPS building walls, high-reach excavators will be used to shear steel and remove elevated portions of the boilers. Boiler structure framing, steam and mud drums, preheaters, downcomers, and other equipment will be felled by severing the structural framing at key locations by mechanical or controlled implosion methods, enabling the structure to collapse on itself. The scrap will then be cut to size by mechanical shears and loaded out for transportation to recycling facilities.

The demolition of the EPS power plant building and other structures is expected to generate approximately 32,000 tons of concrete, 36,000 tons of scrap metal (including steel), and 3,000 tons of other debris.



Additional structures still standing will be brought to grade using high-reach machines. The material will be processed for removal offsite using hydraulic shears.

Grade will vary for the respective portions of the building. The intent is to leave in place the base foundation of the respective Units 1–5 power blocks and the cooling water intake canals. Equipment and steel I-beam supports at these base elevations will be removed to the associated pedestals, as applicable. This base foundation will be either the surrounding grade of the plant, the elevation of which is 17 feet above mean sea level (amsl); surrounding grade of the cooling water canals, which is grade 10 feet amsl; Units 1–3 base foundation, which is elevation 0 feet amsl; and Units 4–5 which is elevation (-14) feet below msl. Following completion of demolition to grade, these base foundations will be secured with safety railing and access to them will be restricted.

Concrete generated from the walls and upper elevations inside the plant structure will be crushed onsite using a mobile crushing plant. The crushing plant will be either diesel or electric powered. Pre-wetting of concrete and misting will be used to mitigate potential dust generated during the crushing process.

Crushed concrete will be either stockpiled onsite for later reuse or used to fill basements and other subgrade infrastructure where possible. Substructures that require seepage dewatering or may accumulate stormwater that would have to be managed later will not be filled with concrete to minimize the potential of generation of wastewater with elevated pH and/or solids.

## 5.5.2 Stack

The EPS stack is essentially “a stack within a stack.” The inner stack is stainless steel and carbon steel that emanates from approximately 140 feet above ground surface to the 400-foot top of stack elevation. The stainless steel section of the inner stack is at the top of stack and is approximately 30 feet tall. The remainder of the inner stack is carbon steel. The stack is insulated with fiberglass secured with wire mesh and is supported by a concrete exterior shell from ground surface to its 400-foot elevation. Stack demolition will be accomplished by the use of mechanical dismantling for the concrete shell and torch cutting for the carbon steel portion of the inner stack. The stainless steel portion of the inner stack will be removed by mechanical means such as shearing or cold cutting, and will be removed intact by shearing/cutting where the inner stack transitions to carbon steel. After the stainless steel portion is separated from the remainder of inner stack, the stainless steel portion will be lowered to grade with a crane or removed intact by cutting at the carbon steel portion and deforming the stainless steel portion for passage through the interior of the inner stack.

During the first phase of this process, the base of the outer concrete stack liner will be modified using an excavator/breaker to create a passage for debris to pass through. The outer concrete stack will essentially be used as a chute for conveying the demolition debris from the stack to the ground elevation for load-out. Portions of the carbon steel stack will be cut in manageable pieces and dropped to ground elevation through the interior of the stack. The ground elevation inside the stack will be isolated for worker safety and protected to avoid damaging any structural portion of the foundation or stack. After the stack liner is completely removed, including structural supports, the metal ductwork connecting the boilers to the stack will be demolished and removed so the concrete outer stack is left free standing for the installation of an engineered mast climbing or other platform system. Once the mast climbing or other platform system is installed on the exterior of the concrete outer stack, the outer stack demolition work will begin starting at the top of the stack and moving downwards. This will be done using work crews or small robotic demolition units installed on the movable mast platform. The work crews or robotic units will be equipped with hydraulic jackhammers, crushers or shears, and plasma torches. The climbing platform will be shrouded as needed to prevent debris or dust from falling below the work elevation. As the crews break apart the outer concrete stack, the material will be pushed inside the outer stack where it is funneled to the base. The material will be contained inside the outer stack for safety and for controlled load out of the material. The platform will secondarily function to capture any additional debris that falls outside of the stack. Additionally, this demolition technique minimizes fugitive dust. A front-end loader will be used at the stack

base to remove material as needed. The platform is lowered as necessary to remove each section until the remaining stack height is approximately 80 feet. At this point, the mast climbing platform system will be removed and the remaining portion of the outer stack will be demolished using high-reach excavators (equipped with cracker/shear attachments).

The demolition of the stack is expected to generate approximately 12,900 tons of concrete, 240 tons of scrap metal (including steel), and 45 tons of other debris.

### **5.5.3 Ocean Water Intake/Discharge Piping, Structures, and Equipment**

The EPS ocean water intake system will be isolated from the lagoon. Poseidon will continue to intake ocean water for the Carlsbad Desalination Project from the current discharge tunnel, as permitted. As part of the construction of the Carlsbad Desalination Project, the intake will have stop logs installed to allow a concrete plug to be poured to isolate the intake piping from the lagoon, and the circulating water piping at the inlet and exit of each condenser will be cut and a welded cap will be installed. Aboveground piping, valves, screens, filters, and other structures will be demolished and removed. The intake canals and underground circulating piping will be isolated and remain intact. Crushed concrete and other onsite fill may be used to restore subgrade areas to grade to minimize safety risks where possible. Detailed plans for the isolation of the intake structure and discharge piping that Poseidon will continue to use will be submitted to the CEC CPM for review and approval.

### **5.5.4 Northwest Structures, Tanks and Piping**

The EPS industrial (“extended waste” and “low volume”) wastewater facility north of the SDG&E switchyard will only be demolished after demolition of the main power facility and post-demolition dewatering and stormwater quality is assured. The tanks will remain in service until the end of the demolition phase. Modular wastewater management system (temporary, Baker-type tanks) may be used while EPS is in lay-up/stabilization phase prior to redevelopment to ensure the management of wastewater from the power block areas and other general EPS areas currently serviced by Encina Water Authority’s discharge permit and the Industrial NPDES permit.

Some of the tanks and equipment that will be removed include the Low Volume Waste Tanks #1 and #2 (that discharge via the NPDES permit), Extended Waste Tanks #3 and #4 and Treated Water Tanks #5 and #6 (that discharge to Encina Water Authority), as well as supporting pumps, filters, piping, instrumentation, and controls. The tanks, piping, valves, pumps, and other structures will be demolished and removed and crushed concrete and other onsite fill will be used to fill subgrade areas that represent a safety risk by not being filled.

### **5.5.5 Fuel Oil Piping and Supports**

Any final above-grade fuel oil piping and supports not previously removed as part of the Amended CECP development and/or during construction of the Poseidon Carlsbad Desalination Project will be removed.

### **5.5.6 Southeast Corner Structures**

The machine shop and compressor building, each on either side of the existing fuel gas regulating station, will be demolished to grade.

### **5.5.7 Two Domestic Water Tanks on SDG&E Property**

Two welded steel tanks, located on the SDG&E maintenance yard to the south of EPS, serve as storage for the fire water system. The aboveground tanks and associated piping, pumps, and structures will only be demolished to grade after all demolition is completed and concurrence of removal of the structures is obtained from the City of Carlsbad Fire Department.

### 5.5.8 Structure(s) Salvage

Components that can be salvaged and resold will be removed and stockpiled separately from the other material. The electrical components will be segregated for salvage, recycling, or disposal. The piping will be cleaned, removed, and recycled where feasible. Precious metals will be salvaged prior to demolition of the power block structure.

The structures will be demolished and components that can be salvaged and resold will be removed and stockpiled separately from the other material. The debris from the building structures will be segregated where economical and will be recycled.

The tanks will be cleaned, and those that cannot be salvaged will be demolished and the metal recycled. The rebar matting within the tank foundation will require cutting either by torch or shear.

The types and approximate quantities of the stack/power plant building/other structures demolition waste expected to be recycled onsite are as follows: 10,500 tons of concrete (from stack demolition), and 26,000 tons of concrete (from EPS power plant building/other structures).

The types and approximate quantities of the stack/power plant building/other structures demolition waste expected to be recycled offsite are as follows: 2,500 tons of concrete (from stack demolition), 250 tons of scrap metal (from stack demolition), 6,500 tons of concrete (from EPS power plant building/other structures), and 36,000 tons of scrap metal (from power plant building/other structures). The amount of demolition waste/recycled material shipped per truck load will range from approximately 18 tons to 22 tons per load. As a general work practice, this material will typically be shipped to the construction/demolition material recycling center located nearest to the project site: for concrete, this would be Moody's Recycling located at 3210 Oceanside Blvd., Oceanside, Calif. (approximately a 7-mile haul distance from project site); for scrap metal, this would be EDCO CDI Recycling located at 224 S. Las Posas Road, San Marcos, Calif., (approximately a 10-mile haul distance from project site). Based on recently preliminary discussions with both of these facilities, they will be able to accommodate the amount of concrete and scrap metal listed above.

### 5.5.9 Gas Turbine / Gas Metering Runs

This work area is located east of the existing EPS power block and north of the SDG&E switchyard and includes:

- Gas turbine generator
- Gas metering facility
- Natural gas metering facility

The emergency/black-start gas turbine generator to include ISO phase bus and dedicated water storage tank, and structures that will no longer be necessary to support the SDG&E switchyard operations and maintenance will be removed for recycling. The electrical and gas shutoffs will be removed for recycling or salvage. The piping and conduits will be removed to grade and will be capped where left in place.

Miscellaneous small electrical equipment will be removed and segregated for recycling. The generator and supporting components will be salvaged and evaluated for resale.

The fencing around the gas metering facility and natural gas metering facility will be removed for recycling. CECP-owned electrical and gas shutoffs will be removed for recycling or salvage. The piping and conduits will be removed to grade and will be capped where left in place. Miscellaneous small electrical equipment will be removed and segregated for recycling. The metering components will be salvaged and evaluated for resale.

### 5.5.10 SDG&E Electrical Switchyard

The SDG&E electrical switchyard is managed by SDG&E. All work associated with the disconnect and removal of the electrical leads from EPS generating units to the switchyard will require planning and

coordination with SDG&E in advance of the work. The disconnection will be identified and approved by SDG&E. Care will be taken not to damage any equipment that will remain. Only the conduits and electrical wiring and support equipment outside the SDG&E switchyard will be removed.

## 5.6 Materials, Equipment, and Services Responsibilities

The material, equipment, and services responsibilities are outlined the following section.

### 5.6.1 Material, Equipment, and Services Provided by CECF

The following material, permanent equipment, or permanent services set forth herein for, or in connection with, will be provided for the performance of the demolition of EPS:

- Access to site:
  - Access to the work site
  - Location for contractor trailer facilities
  - Access to a construction water source
  - Access to telephone service
- Parking facilities
- Limited roughly graded space adjacent to the construction site for temporary facilities and storage of material and equipment.
- Site perimeter security fencing and access gates will maintained in place at all times.

### 5.6.2 Material, Equipment, and Services

The following required temporary facilities and utilities will be provided to perform the work:

- Environmental permits and similar agency requirements are presented in Section 3.0 of this Plan.
- CECF will be responsible to coordinate trucking transported services with the designated trucking firm. CECF will have the responsibility to ensure landfill acceptance requirements and all Department of Transportation requirements are met. Transport begins only after sign-off by an authorized CECF representative and authorized transporter representative.
- Transport and disposal of environmentally hazardous and regulated waste material to an authorized site.
- Tagging of equipment and electrical and mechanical materials (such as conduit, tray, and piping) inside the existing buildings as to whether it shall be demolished, relocated, or left in place (not to be disturbed during demolition activities).
- Connections to and disconnections from water supply will be provided by CECF.
- Portable generators shall be provided by contractor as required for temporary power for construction in all other areas of the work. During abatement, a responsible party will be assigned to fuel and maintain the generators at all times, 24 hours a day per regulatory requirements.
- Fencing and gates for the protection of the areas of work will be installed.
- Temporary facility and laydown area including the maintenance of laydown, storage, and work areas, as well as roads within such areas. Upon demobilization, that portion of the site previously occupied by temporary facilities and laydown area shall be returned to its pre-construction condition or better. This requirement shall also apply to temporary roads, and parking and laydown areas.
- Operation and maintenance of sanitary systems, industrial systems, storm drainage and utility sewage systems for temporary facilities and construction area sanitary will be manages at all times.

- Adequate weatherproof storage compounds will be provided for storage of materials, tools, and equipment that are subject to damage by weather. The location of storage compounds must be agreed with CECP before storage of materials commences. Such compounds shall be maintained for the storage of the approved materials and for no other purpose.
- Construction Power—Includes connections to and disconnections from EPS provided construction power supply, transforming to lower voltage and distribution.
- Temporary facility area power, lighting and heating supply—Electrical installations within temporary buildings shall be in accordance with the National Electric Code. Any temporary electrical device 480 volts AC or above must be inspected and approved prior to use. This includes connections to and disconnections from construction power supply, transforming to lower voltage and distribution.
- Before plugging in any electrical appliance to any plug socket belonging to CECP, it shall be ensured that the appliance is in good condition and is fitted with a suitable cable including fully rated and insulated neutral conductor and protective ground conductor.
- Construction water—CECP will provide temporary water distribution supply connections and water storage facilities. CECP will distribute and convey water in an efficient and orderly way. Leaks and waste shall be minimized and care shall be exercised to eliminate the buildup and dispersal of mud resulting from leaks, spills and truck loading operations.
- Potable water—(supply of potable water, including ice): The demolition contractor will assure distribution to points of consumption in appropriate receptacles accompanied by suitable drinking vessels.
- Testing water—CECP will provide distribution, supply lines and water storage facilities. CECP will distribute and convey water in an efficient and orderly way. Leaks and waste shall be minimized and care shall be exercised to eliminate the buildup and dispersal of mud resulting from leaks, spills and truck loading operations. Water shall not be discharged to any drainage system without approval of CECP.
- Temporary Buildings—CECP will provide, operate, maintain, and dispose of temporary buildings, including change rooms in accordance with all requirements.
- Sanitary facilities in buildings shall be operated with running water and effluent shall be collected and temporarily stored in holding tanks for removal by pump trucks. Chemical toilets may be used outside buildings. Chemical toilets shall be cleaned and serviced daily. Industrial sewage from Contractor's temporary construction facilities and operations shall be collected in holding tanks for disposal by pump trucks.
- Fuels and lubricants—Oils, greases, and similar materials must be stored in nonflammable bins or buildings or in a fenced compound remote from other combustible materials.
- "No smoking" signs will be prominently displayed in areas where flammable materials are stored. Additionally, suitable fire extinguishers will be provide and maintained in such areas.
- Compressed air and gases—Compressed air and gasses will be supplied as needed to support demolition activities. No use of existing plant compressed air will be allowed. Storage and use of compressed gases and associated tanks shall be in accordance with appropriate safety regulations.
- Temporary roads and parking—All project roads and parking areas, parking in temporary facilities areas, construction areas, and between areas will be maintained. Roads and parking areas shall be constructed to provide for adequate safe movement of light and heavy vehicles, and equipment. Temporary roads shall be constructed in a manner ensuring the avoidance of damage to all permanent roads, facilities, and underground structures. Temporary roads and parking areas will be regularly maintained, and all

roads will be watered/sweep in accordance with dust abatement measure. Temporary roads and parking areas will be removed and restored upon completion of the work.

- Material handling and rigging—Cranes and other necessary equipment will be used for handling, hauling, unloading, and receiving, as well as contractor-supplied materials, tools, and equipment. Additionally, the following activities will be conducted to support material handling and rigging:
  - Supply, erection, maintenance, and dismantling of scaffolding and other means of access to the work
  - Specified methods of Nondestructive Examination
  - Weather Protection of the work and any methods required to allow continuation of the work during periods of inclement weather
  - Small tools
  - Standard expendable or consumable construction items and supplies
  - Temporary lighting
  - Provision and operation to allow the work to be performed in a safe manner regardless of ambient lighting conditions
  - Personnel protective equipment
- Permits for Temporary Facilities—applicable permits, licenses and government approvals for temporary facilities that are located within and outside the Project boundaries will be obtained. Temporary facilities will be provided, operated, maintained and disposed of in accordance with all laws and regulations.
- Fencing—Temporary fencing to secure work areas, temporary facilities areas materials and equipment storage area, and work site perimeter fence will be provided.
- Signage—Project signs for traffic control, and direction, and for identifying project areas will be posted. Signage shall be based where possible on International signage standards and conventions. Where roads are closed temporary-basis Flagmen shall be provided to control traffic flow.
- First aid Facilities—Cal-OSHA compliant first aid facilities will be provided.

## SECTION 6.0

# Demolition Material Handling, Storage, and Transportation

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The materials generated during the demolition of EPS will include nonhazardous waste, hazardous waste, salvage equipment for resale, and recyclable materials. The materials will be staged in a manner that will reduce the number of times it needs to be handled. The WMP prepared in compliance with 07-AC-06C will be modified as needed to specifically address the EPS demolition and the associated generation and characterization of waste, onsite storage and handling, waste discharge, offsite shipment, and disposal and recycling of solid and liquid wastes, including sanitary waste, generated at the project site. The WMP will be updated in accordance with CEC License COC WASTE-5. The WMP will include the objective for solid waste management to that meets or exceeds the waste diversion goals established by the Integrated Waste Management Compliance Act (Pub. Resources Code, § 41780 et seq.) and San Diego County Ordinance No. 9840 to recycle 90 percent of inert debris and 70 percent or all other construction and demolition debris.

## 6.1 Nonhazardous Solid Waste

The following nonhazardous solid waste will be generated as part of the EPS demolition:

- Wood from buildings classified as a nonhazardous and non-recyclable waste
- Mixed debris consisting of wood, metal, or other inert, nonhazardous material that is not economical to separate
- Plastics from cleaned piping, equipment, and utilities that have been classified as nonhazardous
- Electrical equipment that have been classified as nonhazardous and cannot be salvaged
- Duct work or other ventilation material that is determined to be non-recyclable and that have been classified as nonhazardous
- Municipal solid waste (general trash) that has been classified as nonhazardous

Non-recyclable construction and demolition debris will be stockpiled in the vicinity of the active work area in a location that is easily accessible. The waste will be stored in a manner that will prevent surface water from moving through the waste and into nearby areas. Municipal solid waste will be accumulated in appropriate containers (dumpsters, for example). The SWPPP will address the engineering controls that will be required for all nonhazardous waste.

## 6.2 Hazardous Wastes and Materials

The following hazardous waste and materials will be generated as part of the EPS demolition:

- Electrical equipment that have been classified as hazardous and cannot be salvaged
- Decontamination water
- Light ballasts
- Asbestos
- Refractory
- Lead-based paint
- Universal waste

The waste will be stored and managed in accordance with the WMP. The SWPPP will address the engineering controls that will be required for all hazardous waste.

## 6.3 Salvage Equipment

All equipment that is determined to have a salvage value will be stored at a central location and prospective buyers will be allowed to purchase. An attempt will be made prior to removal to sell the equipment so it can be loaded for transport immediately after removal to avoid handling the equipment multiple times. If the equipment cannot be sold, it will be either recycled when applicable or disposed of as a nonhazardous or hazardous waste.

The following types of equipment may be salvaged:

- Tanks
- Pumps
- Turbines
- Generators
- Transformers
- Control equipment
- Motors
- Furnaces
- Boilers

## 6.4 Recyclable Materials

Excess material and construction and demolition debris will be recycled to the extent possible. The following presents estimated quantities of material to be recycled:

The metal consists of fencing, tanks, support beams, piping, miscellaneous building materials, equipment, and components. Additionally, wood including railroad ties, plastic, electrical components, and other miscellaneous materials will be recycled when practical.

The demolition activities and site layup/stabilization will require materials to be transported on- and offsite. Some of the export material will be salvage equipment and components, recycled material, or waste for disposal.

## 6.5 Import Materials

Demolition and site lay-up/stabilization will require the import of construction materials. Construction materials will include aggregate base, cement grout, cement concrete, paving asphalt, and lumber. Additional materials may include vehicle and/or personnel barriers. Import material is estimated as follows:

- Aggregate base for road stabilization and paving sub-grade, as needed
- Cement grout for cooling tunnel plugging – 200 cubic yards
- Cement concrete for temporary foundations – 50 cubic yards
- Paving asphalt, as needed
- Lumber for temporary barricade and worker protection – 4 truckloads.

## 6.6 Recycling and Salvaging

The demolition activities will generate materials that can be recycled and equipment and components that can be salvaged and sold for reuse. The transportation of these materials is discussed in this section.

### 6.6.1 Recyclable Materials

Materials that are generated during the demolition activities that can be recycled include metal consisting of fencing, tanks, support beams, piping, miscellaneous building materials, equipment, and components.



Additionally, asphalt, wood (including railroad ties), plastic, electrical components, and other miscellaneous materials will be recycled.

Recycled and salvaged materials will be loaded and secured on trucks from the centralized staging areas. The material will be transported offsite through the approved TCP and haul routes. The TCP will identify routes and times the materials will be transported.

Scrap metal would be shipped to EDCO CDI Recycling located at 224 S. Las Posas Road, San Marcos, Calif. (approximately a 10-mile haul distance from project site).

### 6.6.2 Salvage Equipment

The equipment and components that are sold as salvage will be transported offsite through the main gate. The TCP will identify routes and times the materials will be transported. The quantities of this material have not been estimated as part of this Plan as the future market value and desirability are not known.

## 6.7 Waste Transport and Disposal

Waste generated during the demolition of the EPS is anticipated to fall into one of the following waste categories:

- Nonhazardous Construction Debris
- Universal Waste
- Non-RCRA Hazardous
- RCRA Hazardous
- Toxic Substance Control Act Regulated Material

Wastes will be hauled by truck from the site to the appropriate disposal facility. The trucks will be loaded at the site either from temporary stockpiles or directly from the demolition activities. Water spraying may be implemented to suppress potential fugitive dust while loading. Trucks will be covered with tarps prior to leaving the site.

Prior to offsite disposal of any waste, a waste approval package for each waste stream will be prepared. This package will include a waste profile including the generator of the waste, analytical summary table(s) applicable to the waste, LDR notification for any hazardous wastes, a completed waste manifest, and any other applicable information necessary for the client to complete its review of the disposal package and signature as the generator. The signed profile will then be submitted to the offsite facility for acceptance and approval. Once the approval letter is received from the offsite facility, transportation can be scheduled. Each load of waste material will be manifested prior to leaving the site.

The generator and the transporter must sign the manifest prior to the load of waste leaving the site. A copy of the manifest will be retained on site for tracking purposes. The original signed manifest will be returned to the address of the generator. The TCP will identify routes and times the materials will be transported.

Clean Construction and Demolition Debris

Wastes that are characterized as nonhazardous C&D debris may be transported to and disposed of at one of the following landfills:

- Otay Landfill: a Class III municipal solid waste landfill and is located in the southwest portion of San Diego County. The Otay Landfill comprises 464 acres, of which 230 acres are currently permitted for landfilling. It is permitted for disposal of nonhazardous waste, which includes residential and commercial municipal solid waste, inert solid waste, and industrial waste.
- City of San Diego Miramar Landfill: Is a Class III municipal solid waste landfill located north of Highway 52 at 5180 Convoy Street.

### 6.7.1 Non-RCRA Hazardous Waste

In California, hazardous waste includes those wastes identified under the RCRA in 40 CFR 261, Subparts C and D, or wastes that meet the criteria outlined in 22 CCR Section 66261.101. The latter wastes are referred to as non-RCRA hazardous waste. Non-RCRA hazardous waste generated during the demolition activities will include asbestos, refractory waste, soil, and other waste identified during the demolition.

Non-RCRA hazardous solid waste (including non-friable asbestos, hydrocarbon impacted soil) will be shipped to South Yuma County Landfill located in Yuma, Arizona.

Non-RCRA hazardous liquid waste (including waste oil, oily water, etc.) will be shipped to DeMenno/Kerdoon located in Compton, California.

### 6.7.2 RCRA Hazardous Waste

RCRA hazardous waste generated during the demolition activities will include lead-based paint chips, lead waste from paint stripping activities, and lead removed from batteries (non-universal-waste batteries).

RCRA hazardous solid waste (including friable asbestos) will be shipped to U.S. Ecology located in Beatty, Nevada.

### 6.7.3 Universal Waste

The following types of universal waste may be generated during the EPS demolition activities:

- Batteries including the nickel-cadmium and small sealed lead-acid batteries that are found in many common items in the business and home setting, such as those used in electronic equipment, mobile telephones, portable computers, and emergency backup lighting.
- Mercury-containing equipment including devices or a part of a device that contains elemental mercury integral to its function (for example, thermostats, switches, and pressure or vacuum gauges that contain mercury).
- Lamps include fluorescent tubes and bulbs, high-intensity discharge lamps, sodium vapor lamps, and any other type of lamps that exhibit a characteristic of a hazardous waste. Also, any electric lamp that contains added mercury, whether or not it exhibits a hazardous waste characteristic, is a universal waste.

Universal wastes must be shipped to a “destination facility” that treats, disposes of, or recycles a particular category of universal waste in compliance with 22 CCR 66273 in California, or the applicable universal waste requirements of other states.

Universal waste disposal facilities would include be EDCO located in San Marcos California.

### 6.7.4 TSCA Regulated Material

Any light ballast identified as “PCB-Containing,” without a label, or a ballast that contains a leaking capacitor will be disposed of offsite as PCB bulk product waste:

- In an incinerator approved under TSCA
- In a chemical waste landfill approved under TSCA
- In a RCRA-permitted hazardous waste landfill

Prior to or after demolition of the EPS power building concrete foundation wipe samples of the concrete will be used to determine if PCBs have contaminated portions of the concrete foundation. Concrete which tests positive for PCBs will be managed and disposed of offsite as a PCB bulk product waste.

RCRA hazardous solid waste (including TSCA PCB containing waste or PCB contaminated material) will be shipped to U.S. Ecology located in Beatty, Nevada.

## SECTION 7.0

# Post-Demolition Management and Transition to Local Jurisdiction

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After demolition is completed, the project owner will stabilize the site to ensure that remaining equipment, dewatering functions, stockpiles, stormwater management, security and any engineered controls (safety barricades, etc.) are in-place and maintained for safety, environmental protection, and security measures. A post-demolition management and monitoring plan will ensure:

- Management of the dewatering systems
- Management of storm and wastewater systems
- Inspection of site stabilization features
- Routine maintenance activities
- Reporting activities
- Emergency response procedures
- Security procedures

Upon completion of the demolition and stabilization of onsite conditions, the EPS site will be transitioned to the City of Carlsbad. This will include establishment of permits independent from permits covering CECP, designation of easements on the EPS site needed to the support operations of the CECP.

## 7.1 Post-Demolition Activities

The basement and canal features onsite require dewatering of groundwater seepage and stormwater accumulation. This wastewater management system is currently permitted in the existing individual NPDES permit maintained by Cabrillo Power I LLC. The same infrastructure will remain in-place; however, a new Report of Waste Discharge will be filed with the San Diego RWQCB. The new discharge permit will contain the required monitoring and reporting frequencies. The new permit will include the requirement of the General Industrial Stormwater NPDES Discharge requirements. The updated Individual NPDES will also include the monitoring and reporting requires for stormwater discharges. In addition, the existing Encina Wastewater Authority wastewater discharge permit will be maintained or updated as needed to manage wastewater streams from the power block areas and other EPS areas currently serviced by the Encina Wastewater Authority discharge permit.

Stabilization features may be required to stabilize foundations, safety barriers, future assessment areas, stockpiles, parking areas, etc., onsite. These features will be considered temporary until final site assessment and development occurs. These stabilization features will need to be designed for long term management of areas and may require significant engineering and construction. These features will be engineered to ensure safety and environmental management and require minimal maintenance.

Routine monitoring of the site will be established and reporting of site conditions will be provided as needed. Reporting will include any emergency or security issues that may have occurred during the previous reporting period. Incidents will be evaluated for improved safety and/or security.

## 7.2 Transition to Local Jurisdiction

NPDES permits held by the EPS facility will be transferred to the redevelopment owner. The monitoring and maintenance activities will be the responsibility of the redevelopment owner. The CECP project owner will apply to the CEC for a removal of the EPS site from CEC jurisdiction, making a demonstration in that petition that required local and other state agency permits are independently in effect. Upon approval by CEC, the

former EPS site will fall under the jurisdiction of the City of Carlsbad and redevelopment can proceed as envisioned and required in the agreement with the City of Carlsbad, NRG Energy Inc., and SDG&E.